

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

Oak Ridge UE D&D Project Operating Plan

BACKGROUND

Recovery Act Project:	Oak Ridge UE D&D Funded Recovery Act Project
TAFS:	89-09/10-5657
Project Identification Code:	2002210
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Uranium Enrichment D&D Fund (H.R. 1-25)
Project Cost:	\$118,200,000
Budget Authority:	05998, 1111362, FF.01.10.00.0
Program Office:	Environmental Management
Recovery Program Plan:	EM – Uranium Enrichment Decontamination and Decommissioning Fund
Management Office:	John R. Eschenberg, Assistant Manager for Environmental Management, Oak Ridge Office, eschenbergj@oro.doe.gov Lee McGetrick, ORO Recovery Portfolio Manager, Oak Ridge Office, mcgetricklb@oro.doe.gov

LEADS

Implementation:	Oak Ridge Office
Breakthrough:	N/A
Laboratory:	N/A

I. SUMMARY & OBJECTIVES

Summary:

The DOE Oak Ridge site is home to three major facilities, the Oak Ridge National Laboratory, the Y-12 Plant, and the East Tennessee Technology Park (ETTP). ETTP was formerly known as K-25, where DOE enriched uranium since World War II. The end state for ETTP is for all facilities to be either demolished, or decontaminated and transferred to the local community for reuse.

Prior to receiving Recovery Act funding, EM expected to complete the Oak Ridge Site cleanup in 2021, as stated in the Status of Environmental Management Initiatives to Accelerate the Reduction of Environmental Risks and Challenges Posed by the Legacy of the Cold War Congressional Report, dated January 2009.

This Recovery Act project supports the mission of the Department of Energy (DOE) Office of Environmental Management (EM) by performing limited pre-demolition activities in the K-27 Uranium Enrichment Facility and by demolishing the K-33 Facility.

The K-27 Building consists of nine building units occupying a 383,000 square foot "footprint" with over 1.1 million square feet of total floor area. Work to be accomplished

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

includes asbestos abatement, vault clean-out including excess material removal, construction electrical upgrades, lube oil system draining and disposal, coolant draining and removal, and waste removal and disposal.

The K-33 Building occupies a 1.4 million square foot “footprint” with over 2.8 million square feet of total floor area. This building was constructed of concrete and steel with an exterior of corrugated transite. All process piping, ducts, processing equipment and interior asbestos insulation were removed under a previous contract. Radiological and chemical contamination exists throughout the structure. Work to be accomplished includes performing pre-demolition activities (such as demolishing tie-lines, clearing the perimeter area, and removal of waste) and demolishing the facility to the slab.

The scope of this Recovery Act project is currently part of the Oak Ridge baseline mission. With this funding, limited pre-demolition activities will be performed in the K-27 Uranium Enrichment Facility by FY 2010 and the K-33 Facility will be demolished to slab by FY 2012, four years earlier than planned. The remaining pre-demolition activities and the demolition of the K-27 facility will be performed after 2011 with EM base program funding.

While this is the 2011 goal, by 2010, which is the first milestone for Recovery Funding, we are expecting to make significant progress by completing the limited pre-demolition activities in the K-27 Facility and award an Indefinite Deliverable Indefinite Quantity contract and initiate pre-demolition activities on the K-33 Facility.

Deinventory and Demolition Projects:

FIMS ID	Description	Square Feet (ft ²)	Category
33	K-33 Process Bldg	2,831,717	Demolish

This Recovery Act work meets the following the Department of Energy (DOE) and Environmental Management (EM) strategic themes and goals:

DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

DOE Strategic Goal 4.1 – Environmental Cleanup – Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States.

DOE Strategic Theme 5 – Management Excellence - Enabling the Department’s mission through sound fiscal and program management.

DOE Strategic Goal 5.1 – Integrated Management – Institute an integrated business management approach throughout DOE with clear roles and responsibilities and

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

accountability to include effective line management oversight by both Federal and contractor organizations.

EM Strategic Goals – Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup. Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations.

Work Scope Changes:

The scope in the originally approved POP was to complete all activities to prepare K-27 for demolition. This POP reflects in the change in this scope to only performing limited pre-demolition activities.

Buy Back Work Scope:

Based on the potential availability of funds from unused management reserve and contingency funds and from cost efficiencies in executing the planned projects, the following additional candidate projects have been identified should funding become available.

- Demolition of the K-33 Building slab
- Demolition of K-33 small ancillary facilities

Performance measurement baselines, milestones, and metrics will be developed as projects are selected and definitized.

Public Benefits:

Public benefits resulting from Recovery Act funding range from job creation, to cost savings over the life-cycle of the EM program, to enhanced environmental protection due to the cleanup and closure of the EM sites from the former nuclear weapons complex. High risk facilities will be deactivated and made ready for demolition, thereby reducing potential safety and health risks.

In addition, this project accelerates completion of existing environmental protection and site cleanup goals at the East Tennessee Technology Park, eliminating potential environmental threats to the areas surrounding the Oak Ridge Reservation. Completion of the limited pre-demolition activities described above for the K-27 facility will reduce the Environmental Management liabilities. Completion of the demolition of the K-33 facility will eliminate 2.8 million of gross square feet from the skyline at ETTP. Completion of EM work meets DOE's commitment to transfer ETTP for community reuse.

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

Recovery Act Project Impacts:

The Recovery Act Project will eliminate on-site sources of contamination reducing the risk of a release of radioactive or other hazardous materials to the work force, public, and the environment. This project will create and/or retain jobs in line with Recovery Act economic objectives. In addition, this project accelerates completion of existing environmental protection and site cleanup goals at the East Tennessee Technology Park, eliminating potential environmental threats to the areas surrounding the Oak Ridge Reservation. Completion of the limited pre-demolition activities described above for the K-27 facility will reduce the Environmental Management liabilities. Completion of the demolition of the K-33 facility will accelerate the elimination of 2.8 million of gross square feet from the skyline at ETTP by four years.

II. COST & SCHEDULE

Budget:

Table 1: Budget Implementation Monthly Obligations (actual obligations to contractors for Apr 2009 through Feb 2010 and projected obligations to contractors for Mar 2010 through Sept 2010) (\$M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with an obligations table.

Table 2: Budget Implementation Actual and Planned Monthly Expenditures (actual costs for Apr 2009 through Feb 2010 and projected costs for Mar 2010 through Sept 2011 and then, if applicable, projected annual expenditure in FY2012) (\$M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with a costs table.

The expenditure profile in Tables 1 and 2 and the performance measures provided in Table 6 are based on the best available information about the Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that as the detailed estimates and resource-loaded schedules (using Primavera 6.2) are developed, there will be changes to these estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

Funds Returned and Offsetting Collections

Table 3: Funds Returned and Offsetting Collections (\$M)

	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
N/A							

Indirect Costs:

This work will be performed by an existing Management and Integration contractor utilizing an approved indirect rate structure and by an Indefinite Deliverable Indefinite Quantity contractor.

The Management and Integration contractor estimated rates are: FY 2009 15.5 %, FY 2010 15.5 %, and FY 2011 16.1%.

Additionally, all Oak Ridge contractor indirect rates are subject to an annual audit review and require final approval by the contracting officer.

Changes to Baseline

Table 4: Changes to Baseline (\$M)

Not applicable

Milestones for K-27 Demo Prep:

Milestone Date	K-27 Demo Prep OR-0040.R1.1
2/19/2010	Complete RCRA/Universal Waste removal
3/15/2010	Complete Coolant Draining
3/26/2010	Complete Vault Cleanout
4/23/2010	Complete shipping and disposal of Lube Oil
4/23/2010	Complete shipping and disposal of RCRA/Universal Waste
4/27/2010	Complete Lube Oil Draining
4/30/2010	Complete Shipping and Disposal of Vault Materials
5/19/2010	Complete asbestos abatement for 3 units of K-27
5/28/2010	Complete Shipping and disposal of Coolant Draining
6/14/2010	Submit Vault Excess Material Removal PCCR D1
6/17/2010	Complete shipping and disposal of asbestos from 3 units of K-27
8/4/2010	Complete shipping and disposal of asbestos for 6 units of K-27
9/30/2010	Complete all asbestos abatement
10/22/2010	Complete shipping and disposal of asbestos
11/11/2010	Submit Asbestos PCCR D1

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

Milestones for K-33 Demolition:

Milestone Date	K-33 Demolition OR-0040.R1.2
	Milestones will be developed after definitization of IDIQ contract baseline.

NEPA Compliance: The scope of work is being undertaken pursuant to the Comprehensive Environmental Response, Compensation and Liability Act; separate NEPA reviews are not required. The Oak Ridge Office's NEPA Compliance Officer will monitor implementation and, as necessary, determine whether future NEPA review is required

Table 5: Delivery Schedule for Capital Asset Projects

Note: This Recovery Act Project consists of two subprojects:

- K-27 Demo Prep which is a Capital Asset Project. This scope has been previously validated as part of an approved CD2/3 Near-Term Baseline for PBS OR-0040.
- K-33 Demolition which is a Capital Asset Project. This scope has been previously validated as part of an approved CD2/3 Near-Term Baseline for PBS OR-0040.

III. PERFORMANCE

Performance Measures:

Performance measures provided in Table 6 are based on the best available information about Recovery Act requirements and pre-work authorization project definitions. Rough order of magnitude estimates have been developed to date for costs and the associated end-state performance measures. It is expected that there will be changes to the estimates and performance measures.

This Recovery Act scope will be integrated into the Oak Ridge baseline, but tracked and reported separately and uniquely, using an approved change control process.

Table 6a: Overall ARRA Performance Measure and Targets

Recovery Act Project Identification Code	2002210
Linkage To S-1 Priorities	Economic prosperity and national security and legacy (see Table 8)
Linkage to Current Program Goal (if applicable)	DOE Strategic Theme 4 – Environmental Responsibility – Protect the environment by

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

	<p>providing a responsible resolution to the environmental legacy of nuclear weapons production.</p> <p>EM Strategic Goals - Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup.</p> <p>Fulfilling commitments to reduce risk and complete cleanup across all sites for future generations.</p>
ARRA Overall Performance Measure	<p>By the end of FY 2012</p> <ul style="list-style-type: none"> • Complete limited pre-demolition activities at the K-27 facility • Complete demolition of K-33 to slab
First Year Performance Target	<p>By the end of FY 2009:</p> <ul style="list-style-type: none"> • Initiate procurement actions and/or mobilize work force - Complete
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • K-27 - Mobilize Staff to Perform Pre-Demolition Activities - Complete
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • K-27 – Award Asbestos Abatement Subcontract – Complete • Issue Phase Construction Completion Report (PCCR).
Second Year Performance Target	<p>By the end of FY 2010:</p> <ul style="list-style-type: none"> • Complete limited pre-demolition activities at the K-27 facility •
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Complete lube oil draining from 7 of 9 units in K-27 facility
Q2 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Complete lube oil draining from remaining 2 units in K-27 facility • Complete construction electrical upgrades in K-27 facility • Complete coolant draining and removal in K-27 facility • Complete waste removal from vaults in K-27 facility • Complete removal of nickel material inside the K-33 facility.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Complete vault cleanout in K-27 facility • Award Indefinite Deliverable and Indefinite Quantity contract for K-33 facility

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Complete asbestos removal in K-27 facility Issue notice to proceed to K-33 contractor
Third Year Performance Target	By the end of FY 2011: <ul style="list-style-type: none"> Complete transite panel removal and initiate demolition for K-33 facility.
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Initiate transite siding removal from K-33 facility. Complete K-33 IPR Complete hazardous material removal from K-33 facility.
Q2 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Complete transite siding removal from K-33 facility.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Initiate disposal of transite siding removed from K-33 facility. Initiate demolition activities - K-33 facility.
Fourth Year Performance Target	By the end of FY 2012: <ul style="list-style-type: none"> Issue Phase Construction Completion Report (PCCR).
Q2 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Complete demolition of K-33 to slab.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> Issue Phase Construction Completion Report (PCCR).

Table 6b. K-27 Demo Prep Detailed ARRA-Specific Project Performance Measures and Targets

K-27 Demo Prep OR-0040R1.1												
	FY 2009 Q3 Target	FY 2009 Q4 Target	FY 2010 Q1 Target	FY 2010 Q2 Target	FY 2010 Q3 Target	FY 2010 Q4 Target	FY 2011 Q1 Target	FY 2011 Q2 Target	FY 2011 Q3 Target	FY 2011 Q4 Target	FY 2012 Yearly Target	Total ARRA Target
None Applicable												

Table 6c. K-33 Demolition Detailed ARRA-Specific Project Performance Measures and Targets

K-33 Demolition OR-0040R1.2												
	FY 2009 Q3 Target	FY 2009 Q4 Target	FY 2010 Q1 Target	FY 2010 Q2 Target	FY 2010 Q3 Target	FY 2010 Q4 Target	FY 2011 Q1 Target	FY 2011 Q2 Target	FY 2011 Q3 Target	FY 2011 Q4 Target	FY 2012 Yearly Target	Total ARRA Target
Metrics will be developed after definitization of IDIQ contract baseline												

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

National Strategic Benefits

Table 7: National Strategic Benefits

Information on National Strategic Benefits Under the Recovery Act is not applicable to this project.

IV. MANAGEMENT

Secretarial-level Items

The initiative outlined in this plan support the following Secretary of Energy's Priorities:

- Economic Prosperity
- National Security and Legacy

Table 8: Secretary's Priorities

Secretary's Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Science and Discovery		
Clean, Secure Energy		
Economic Prosperity	Jobs	Create or preserve jobs.
National Security and Legacy	Removal of asbestos from the K-27 Facility reduces overall risk to workers, the public and environment Reduction of radiological and chemical contamination, hazardous waste, asbestos transite siding, and PCB contamination from the K-33 Building	The demolition of the K-33 Building will eliminate 2.8 million square feet of skyline at the East Tennessee Technology Park reducing the Environmental Management liability
Climate Change		

Collaboration and Coordination:

The following external partners will play a vital role in the successful completion of the Recovery Act scope:

- Regulatory
 - Environmental Protection Agency, Region IV
 - Tennessee Department of Environmental Conservation
 - Tennessee Department of Transportation

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

- Defense Nuclear Facilities Safety Board
- License Disposal Sites
 - Nevada Test Site
 - Energy Solutions, Utah
 - Other Available Commercial Facilities
- Other Stakeholders
 - Oak Ridge Site Specific Advisory Board

Federal Infrastructure Investments: N/A

Line Management:

Oak Ridge will use existing business and project management systems and practices to effectively monitor and report on the Recovery Act projects, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating Environmental Management project cost and schedule baselines consistent with the Department of Energy's Order 413.3A and identifying project risks and strategies for managing them.
- Continue monitoring of the contractors' Earned Value Management System reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Use an Integrated Project Team of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Conduct periodic project reviews to inform senior management of the status of the Recovery Act projects.

Needs from Staff Offices:

- Timely business clearance approval or waiver from Headquarters for definitization modification.
- Priority execution of security clearance requests.

1) Human Capital

Oak Ridge is committed to ensuring the safety of workers and the public during the accomplishment of the additional work under the Recovery Act, and additional measures and personnel are required beyond those currently in place. Accordingly, the current Environmental Management contractor (i.e., Bechtel Jacobs Company LLC) who will be performing work funded under Recovery Act has an existing Safety Assurance Plan.

Project Operating Plan - Oak Ridge UE D&D Funded Recovery Act Project

We have completed our staffing analysis to ensure we are able to perform adequate oversight of this work to ensure the safety of workers and the public. Oversight plans have been established and as additional work is mobilized, staffing requirements are reviewed. Additional requirements for Facility Representatives, Safety System Subject Matter Experts, project control engineers/specialists, estimators, and schedulers will be determined and provided as necessary through Technical Support Services Contract(s).

Table 9: Information on Hiring Under the Recovery Act

Note: Oak Ridge requirements for Recovery Act projects are included in the Oak Ridge Defense ORNL D&D Recovery Act Project Operating Plan.

2) Procurement

Table 10: Procurement Plan

Activity	Type	New/Exist (N/E)	Changes (E), Needs (N)	Status	Expected Complete	Issues (Y/N)
Signed modification including definitization of change order for Bechtel Jacobs Company contract	Contract	Existing	Modification	Modification completed Dec 2009	N/A	N
Award EM CBC Indefinite Delivery Indefinite Quantity contract task order	Task Order	New Task	Indefinite Delivery Indefinite Quantity contract	Task Order Awarded Apr 2010	N/A	N

Other procurement actions that will be required include analytical and technical support.